

AMENDMENTS TO THE CLAIMS

Claims 1-14 (Cancelled).

15. (Previously Presented) A method of manufacturing a semiconductor element, comprising:

forming a gate electrode on a semiconductor substrate, the gate electrode having a metallic silicide layer, a metallic polysilicon layer under the metallic silicide layer, and an SiN layer on the metallic silicide layer;

after said forming of the gate electrode including the SiN layer, decreasing grain boundaries on a surface of the metallic silicide layer, at least a portion of the surface of the metallic silicide layer being exposed, said decreasing of the grain boundaries comprising performing a heat treatment on the metallic silicide layer in an atmosphere consisting of a mixture gas of chief elements of nitrogen and ammonia and an oxidizable gas of less than 100 ppm; and

forming a spacer consisting of an oxide film on a side wall of the metallic polysilicon layer and the metallic silicide layer of the gate electrode;

wherein said decreasing of the grain boundaries is performed after performing a reduced pressure process.

Claim 16-23 (Cancelled).

24. (Previously Presented) A method of manufacturing a semiconductor element, comprising:

forming a gate electrode on a semiconductor substrate, the gate electrode having a metallic silicide layer, a metallic polysilicon layer under the metallic silicide layer, and an SiN layer on the metallic silicide layer;

after said forming of the gate electrode including the SiN layer, decreasing grain boundaries on a surface of the metallic silicide layer, at least a portion of the surface of the metallic silicide layer being exposed, said decreasing of the grain boundaries being performed after performing a reduced pressure process and comprises performing a heat treatment on the metallic silicide layer in an atmosphere including an oxidizable gas of less than 100 ppm; and

forming a spacer consisting of an oxide film on a side wall of the metallic polysilicon layer and the metallic silicide layer of the gate electrode.

25. (Previously Presented) The method of claim 24, wherein said decreasing of the grain boundaries comprises performing a heat treatment on the metallic silicide layer in an atmosphere consisting of a chief element of nitrogen gas.

26. (Previously Presented) The method of claim 24, wherein said decreasing of the grain boundaries comprises performing a heat treatment on the metallic silicide layer in an atmosphere consisting of a chief element of argon gas.

Claim 27 (Cancelled).

28. (Previously Presented) The method of claim 24, wherein the metallic silicide layer comprises a tungsten silicide layer, and said decreasing of the grain boundaries comprises performing a heat treatment on the metallic silicide layer at temperature in a range of 700°C to 800°C for a time period in a range of 30 seconds to 40 seconds.

29. (Previously Presented) The method of claim 24, wherein said decreasing of the grain boundaries comprises performing a heat treatment on the metallic silicide layer in an atmosphere including an oxidizable gas, and said reduced pressure process comprises reducing the oxidizable gas level to less than 100 ppm.

30. (Previously Presented) The method of claim 24, wherein the metallic silicide layer comprises a tungsten silicide layer, and said decreasing of the grain boundaries comprises performing a heat treatment on the metallic silicide layer at a temperature in a range of 700°C to 800°C and after said performing of the reduced pressure process at a pressure of 13 Pa to 65 Pa.

Claims 31-35 (Cancelled).

36. (Previously Presented) The method of claim 15, wherein said forming of the spacer is performed after said decreasing grain boundaries on the surface of the metallic silicide layer.

37. (Previously Presented) The method of claim 24, wherein said forming of the spacer is performed after said decreasing grain boundaries on the surface of the metallic silicide layer.